



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

June 25, 2012

Daniel W. Frisk, Project Leader
Sacramento National Wildlife Refuge Complex
U.S. Fish and Wildlife Service
752 County Road 99W
Willows, California 95988

Subject: Draft Environmental Impact Statement (DEIS), Llano Seco Riparian Sanctuary Unit
Restoration and Pumping/Fish Screen Facility Protection Project, Glenn and Butte Counties,
California (CEQ # 20120133)

Dear Mr. Frisk:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.


According to the DEIS, the FWS, in coordination with the California Department of Fish and Game, proposes to restore riparian habitat at the Llano Seco Riparian Sanctuary Unit of the Sacramento River National Wildlife Refuge and to protect the alignment of the Sacramento River at the water diversion for the Princeton-Cordora-Glenn and Provident Irrigation District's (PCGID-PID) pumping plant and fish screen facility. Restoration would consist of removing non-native and invasive plants, cleaning up flood debris, and planting native species. Bank protection measures of the Preferred Alternative 4 would consist of traditional riprap and removal of the existing revetment on a peninsula upstream of the facility.

Based on our review, we have rated the DEIS's preferred alternative as Environmental Concerns – Insufficient Information (EC-2) (see enclosed "Summary of Rating Definitions"). This rating reflects the lack of information regarding air quality impacts and conformity with the State Implementation Plan for the attainment of the National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter less than 2.5 microns (PM_{2.5}). Additionally, we found the alternatives analysis confusing due to the inclusion of two variants of the preferred alternative. Impacts differ for these variants yet these impacts are not clearly differentiated in the alternatives analysis in the DEIS, nor is it clear which variant represents the preferred alternative.

We recommend a clearer disclosure of direct and indirect impacts to wetlands; additional information regarding how the use of herbicides will follow an integrated pest management approach; and clarification regarding impacts to cultural resources and tribal consultation. We also request consideration of the recommendation made in our scoping comments to evaluate bioengineered design techniques for natural bank stabilization. Since our scoping comments may not have been received by the FWS, we are appending them to this letter.

EPA appreciates the opportunity to review this DEIS. When the Final EIS is released for public review, please send one copy to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3521, or contact Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kathleen Martyn Goforth', with a stylized flourish at the end.

Kathleen Martyn Goforth, Manager
Environmental Review Office (CED-2)

Enclosure: Summary of EPA Rating Definitions
 EPA's Detailed Comments
 EPA Scoping Comments

cc: Tracy McReynolds, California Department of Fish and Game
 Butte County Air Quality Management District
 Mechoopda Indian Tribe of Chico Rancheria
 Berry Creek Rancheria of Maidu Indians of California
 Greenville Rancheria of Maidu Indians of California
 Grindstone Indian Rancheria of Wintun-Wailaki Indians of California
 Mooretown Rancheria of Maidu Indians of California
 Paskenta Band of Nomlaki Indians of California

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

“LO” (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

“EC” (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

“EO” (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

“EU” (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

Category “1” (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category “2” (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category “3” (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

Alternatives Analysis

The DEIS identifies two variants of Alternative 4: a low berm option and a no berm option. Impacts of these two variants differ and the impact assessment does not clearly differentiate between them in the alternative analysis. In addition, while Alternative 4 is identified as the preferred alternative, it is not clear if this refers to the low berm or the no berm option.

Recommendation: We recommend that the Final EIS differentiate between these variants of Alternative 4, perhaps splitting them into two distinct alternatives. Ensure that impacts of the two variants are clearly distinguished, as required by the Council on Environmental Quality's (CEQ) NEPA regulations at 40 CFR 1502.14.

Air Quality

The project area straddles Butte and Glenn Counties, and Butte County is in nonattainment for the National Ambient Air Quality Standards (NAAQS) for 8-hour ozone and particulate matter less than 2.5 microns (PM_{2.5}). The DEIS identifies the General Conformity Rule and states that the project is expected to conform "because it is not expected to result in annual emissions above the de minimus rates for which Butte or Glenn County are in nonattainment status" (p. 3-141). However, no emissions estimates are included to demonstrate that levels would be below de minimus rates. The DEIS indicates that approximately 600 trips by 20-ton trucks are anticipated to be needed to haul approximately 12,160 tons of material. Up to six trucks would be expected per hour, resulting in about 25–30 trucks per day accessing the project area (p. 3-137). Alternatives 3 and 4 would require about four to six times as many haul trips for transporting materials for the riprap (approximately 2,300 trips for 46,000 tons of material without a low berm; approximately 3,460 trips for 69,150 tons of material with a low berm). According to the DEIS, these trips can be reduced for Alternative 4 if upstream rock can be reused downstream (p. 3-138). Because of the way the information is presented, the quantity of truck trips presented in the DEIS is not completely clear.

Mitigation measures are identified primarily for dust control, although three discuss reducing vehicle and equipment exhaust: limiting vehicle idling to 5 minutes; maintaining equipment; and using diesel equipment meeting ARB's 1996 or newer certification standard. Because of the ozone nonattainment status, the use of newer vehicles should be pursued.

Recommendations: In the FEIS, identify the expected truck trips in a table format for each alternative, including the 2 variants of Preferred Alternative 4.

Include estimates of emissions for each alternative, including the 2 variants for Alternative 4. Emissions that would be generated in nonattainment areas should be compared to the de minimus thresholds. If the estimates are above de minimus levels for oxides of nitrogen (NO_x), volatile organic compounds (VOCs), or PM_{2.5}, the FEIS should include a commitment to conduct a full general conformity determination prior to the Record of Decision.

Consider additional mitigation measures for the reduction of vehicle and equipment exhaust. We recommend the following:

- Commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible¹. Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using CARB and EPA-verified particulate traps, oxidation catalysts and other appropriate controls where suitable to reduce emissions of diesel particulate matter and other pollutants at the construction site.
- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking;
- Develop a construction traffic and parking management plan that maintains traffic flow, and plan construction to minimize vehicle trips; and
- Identify sensitive receptors in the project area, such as children, elderly, and the infirmed, and ensure construction equipment and staging zones are located away from any sensitive receptors.

Wetlands

The DEIS does not acknowledge EPA's scoping comments (letter dated May 26, 2011; copy enclosed) on the project proposal (p. 1-13). In our scoping comments, we encouraged FWS to incorporate natural bank stabilization and protection measures in the alternatives analysis. Stabilizing banks with natural vegetation provide for better water quality and fish and wildlife habitats. Natural bank stabilization and protection measures include use of native vegetation and bioengineered design techniques (e.g., use of willow plantings, root wads, and large woody debris). A combination of native vegetation and bioengineered design techniques used in conjunction with hard-armoring (e.g. rip-rap) can help create a more natural bank that is effective at protecting against bank erosion and provides long-term stability. It does not appear that bioengineered design techniques were considered in the alternatives analysis and we continue to recommend that FWS consider their merits.

The disclosure of impacts to wetlands and waters of the U.S. from the alternatives is not completely clear. The DEIS implies there will be impacts as a result of the river cut-off expected to occur under Alternative 4 after approximately 5 years, but there is no further discussion of these impacts except that they would be the result of natural processes and would not require additional Section 404 permitting (p. 3-110).

Recommendations: Consider natural bank stabilization techniques and incorporate these, as appropriate, into the project alternatives. If these techniques are not considered feasible for the project and were eliminated from detailed study, briefly discuss the reasons for their having been eliminated (40 CFR 1502.14(a)).

Include a table comparing impacts to wetlands and waters of the U.S. in the Final EIS to better disclose impacts. Include estimates of the acreage of wetlands that would be directly affected by the

¹ Diesel engines < 25 hp rated power started phasing in Tier 4 Model Years in 2008. Larger Tier 4 diesel engines will be phased in depending on the rated power (e.g., 25 hp - <75 hp: 2013; 75 hp - < 175 hp: 2012-2013; 175 hp - < 750 hp: 2011 - 2013; and \geq 750 hp 2011- 2015).

project alternatives and of the acreage expected to experience indirect effects from the change in hydrology that the project will facilitate.

Use of Herbicides

The DEIS indicates that areas with non-native plants would be sprayed with herbicides (p. 2-11) and that all herbicide application would strictly adhere to the Sacramento River National Wildlife Refuge (NWR) Integrated Pest Management (IPM) Plan (p. 3-44). We were unable to find the Sacramento River NWR IPM Plan online¹ and it is unclear how the IPM plan will influence project decision-making. EPA supports an IPM approach where non-chemical and least toxic methods are considered first.

Mitigation Measure WTR-3 states that basal and foliar application of herbicides will be prohibited within 100 feet of the Sacramento River but does not indicate what methods would be used to treat non-native plants within 100 feet of the river.

The DEIS identifies several herbicides that may be used including Roundup (glyphosate), 2,4-D, Milestone (for milk thistle control), Rodeo (for areas adjacent to water bodies), Garlon (for woody species control), and Habitat/Polaris (for giant reed control) (p. 2-11). Disposal of treated vegetation is not discussed, but we note that Milestone's active ingredient aminopyralid is persistent and vegetation killed with this product cannot be composted for future use as a soil amendment. The Milestone label includes instructions for proper handling of treated plant residue.

Some herbicides identified above have formulations for aquatic application and it is not clear if application to surface waters would occur for the project. If application to surface waters would occur, FWS must obtain coverage under the State of California's National Pollutant Discharge Elimination System (NPDES) Pesticide General Permit².

Recommendations: In the Final EIS, expand upon the creation/use of an IPM Plan for the project and how decisions would be made for weed management and preparing the site for restoration plantings. If the IPM hierarchy would be employed, discuss non-chemical means that might be effective for site preparation. Discuss how areas within 100 feet of the Sacramento River would be treated and the feasibility of using non-chemical means on additional areas. Where it is determined that herbicide use would be necessary, discuss how the decision would be made on which product to use, how vegetation waste treated with persistent herbicides would be disposed, and whether application to surface waters would occur and for which species. If water application is expected, identify how FWS would comply with Clean Water Act requirements.

Consultation with Tribes and Impacts to Cultural Resources

Most agencies choose to include the National Historic Preservation Act (NHPA) consultation under the "NEPA umbrella"; however, the DEIS states that the analysis in the document is not meant to provide determination of effects on historic properties pursuant to Section 106 of the National Historic Preservation Act (p. 3-130) and that the FWS will conduct a separate analysis. Consultation with tribes

¹ The Sacramento River NWR Comprehensive Conservation Plan does not include step-down management plan for IPM. It references only the Sacramento Refuge Complex's draft IPM Plan for Mosquito Control and the draft IPM plan that specifically addresses walnut orchards.

² See http://www.waterboards.ca.gov/water_issues/programs/npdes/aquatic.shtml

is only briefly mentioned. The DEIS states that the FWS re-initiated consultation with three local tribes in the form of a letter, and that only the Mechoopda responded, received a site visit, and asked to review the restoration plan. The DEIS did not reveal the names of the other two tribes, nor identify any follow-up activities to ensure the consultation letters were received. The DEIS identifies prehistoric site CA-BUT-2658 as likely eligible for listing in the National Register of Historic Places and identifies 9 isolated finds recorded at the Sanctuary but states that isolated finds are “generally not eligible for listing in the National Register” (p. 3-129). In addition, the DEIS states that human remains are known to be on the site (p. 3-131) but no further information is provided.

The benefits of aligning the NEPA and NHPA Section 106 reviews are that the findings of each process can inform the other and key relevant information is revealed early in decision-making. In addition, information raised in consultation with Indian tribes can be considered during the development of alternatives and assessment of impacts.

Recommendations: Include additional discussion in the Final EIS regarding the future NHPA Section 106 consultation including any updates since publication of the DEIS, any communications with the State Historic Preservation Officer, an estimated schedule for completion, and how information from the consultation will be incorporated into NEPA decision-making. By statute, the Section 106 requirements must be met “prior to” an agency’s final decision.

Identify, in the FEIS, the tribes to which consultation letters were sent, and confirm that the letters were received. Updates concerning tribal consultation and concerns should be included in the FEIS. We recommend FWS consider consultation with the six federally-recognized tribes identified by the Native American Heritage Commission in their scoping comments or include a discussion in the FEIS as to why consultation was not deemed necessary.

Disclose additional information regarding impacts to cultural resources, including the location of the prehistoric site CA-BUT-2658 in relation to the project site (if this is not confidential); discussion of the quality of the isolated finds and circumstances under which they would be considered eligible for listing; and clarification regarding the presence of human remains such as how they are known to be onsite and their location in relation to project disturbance. We recommend that FWS pursue listing of CA-BUT-2658 on the National Register.



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75 Hawthorne Street
San Francisco, CA 94105

May 26, 2011

Daniel W. Frisk, Project Leader
Sacramento National Wildlife Refuge Complex
U.S. Fish and Wildlife Service
752 County Road 99W
Willows, California 95988

Subject: Scoping Comments for Llano Seco Riparian Sanctuary Unit Restoration and Pumping/Fish Screen Facility Protection Project, Glenn and Butte Counties, California

Dear Mr. Frisk:

The U.S. Environmental Protection Agency has reviewed the Federal Register Notice published on April 12, 2011 requesting comments on the U.S. Fish and Wildlife Service's (FWS) Notice of Intent (NOI) to prepare an Environmental Impact Statement for the subject project. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

The FWS, in coordination with the California Department of Fish and Game, proposes to restore approximately 500 acres of the Llano Seco Riparian Sanctuary Unit to improve habitat for wildlife and to address the erosion of the natural riverbank across from the Princeton-Cordora-Glenn and Provident Irrigation Districts (PCGID-PID) pumping plant and fish screen facility. Continued bank erosion will change the angle of flow and velocity of the water passing the screens, trapping fish against the screen rather than sweeping them past. Without some type of protection, it is likely the bank will continue to erode and the pumping plant facility will fail to meet National Marine Fisheries Service guidelines for operation of the fish screens.

The NOI indicates that a full range of reasonable alternatives will be developed based on the River Partners 2005 feasibility study, the 2010 feasibility study prepared by Ayres Associates, and public input. EPA encourages FWS to incorporate natural bank stabilization and protection measures in the alternatives analysis. Natural bank stabilization and protection measures include use of native vegetation and bioengineered design techniques (e.g., use of willow plantings, root wads, and large woody debris). A combination of native vegetation and bioengineered design techniques used in conjunction with hard-armoring (e.g. rip-rap) can help create a more natural bank that is effective at protecting against bank erosion and provides long-term stability.

EPA appreciates the opportunity to comment on this NOI. Once the DEIS is released for public review, please send two hard copies and at least one electronic copy to me at the address above (mail code: CED-2). If you have any questions, please contact me at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

Karen Vitulano
Environmental Review Office

cc: Leah Butler, EPA Region 9 Wetlands Office